

## SEQUENCE LISTING

<110> Qian, Su  
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Metzger, Joseph M.

<120> Agouti-related protein deficient cells,  
non-human transgenic animals and methods of selecting  
compounds which regulate energy metabolism

<130> 21033YP

<150> PCT/US03/20245  
<151> 2003-06-27

<150> 60/393,391  
<151> 2002-07-03

<160> 14

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<213> Mus musculus

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gttgctgagt tgtgttctgc tggggcact gcctcccaca ctgggggtcc agatgggcgt 180  
ggctccactg aaggccatca gaaggcctga ccaggctctg ttcccaagagt tcccaaggtga 240  
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caggcttaga cctccttccc caatcccaat cccaaacctag ggaggtgggt acttggtgca 360  
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acaactgcag accgagcaga agaagttctg ctgcagaagg cagaagctt ggcggaggta 480  
actcattagg gaaaggata aagtagaagg tagggcgcat cagataccat catctctccc 540  
cacttccgga ttacccaacc tgggcagaac tgcagccctt ccctgacccctc agtccactgc 600  
caccctactg gggtcggggt ttgagagttt cctgaacctt attccctac gaatgcaggt 660  
gctagatcca cagaaccgcg agtctcggtc tccgcgtcgc tggtaaggc tgacgagtc 720  
ctgcttggga cagcaggatc cttgctgca cccgtgcgtc acgtgctact gcccgttctt 780  
caatgccttt tgctactgcc gcaagctggg taccgccacg aacctctgta gtcgcaccta 840  
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<212> PRT  
<213> Mus musculus

<400> 2

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 Arg Pro Asp Gln Ala Leu Phe Pro Glu Phe Pro Gly Leu Ser Leu Asn  
 35 40 45  
 Gly Leu Lys Lys Thr Thr Ala Asp Arg Ala Glu Glu Val Leu Leu Gln  
 50 55 60  
 Lys Ala Glu Ala Leu Ala Glu Val Leu Asp Pro Gln Asn Arg Glu Ser  
 65 70 75 80  
 Arg Ser Pro Arg Arg Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln  
 85 90 95  
 Gln Val Pro Cys Cys Asp Pro Cys Ala Thr Cys Tyr Cys Arg Phe Phe  
 100 105 110  
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 115 120 125  
 Ser Arg Thr  
 130

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&lt;211&gt; 486

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 3

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 ccagagctcc caggcctggg cctgcgggcc ccactgaaga agacaactgc agaacaggca 180  
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 gagcccccgt cctcacgtcg ctgcgttaagg ctgcgttgat cctgcctggg acagcagggt 300  
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&lt;212&gt; PRT

&lt;213&gt; Homo sapien

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 Arg Pro Asp Gln Ala Leu Leu Pro Glu Leu Pro Gly Leu Gly Leu Arg  
 35 40 45  
 Ala Pro Leu Lys Lys Thr Thr Ala Glu Gln Ala Glu Glu Asp Leu Leu  
 50 55 60  
 Gln Glu Ala Gln Ala Leu Ala Glu Val Leu Asp Leu Gln Asp Arg Glu  
 65 70 75 80  
 Pro Arg Ser Ser Arg Arg Cys Val Arg Leu His Glu Ser Cys Leu Gly  
 85 90 95  
 Gln Gln Val Pro Cys Cys Asp Pro Cys Ala Thr Cys Tyr Cys Arg Phe  
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Phe Asn Ala Phe Cys Tyr Cys Arg Lys Leu Gly Thr Ala Met Asn Pro  
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 Cys Ser Arg Thr  
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 ccagcagagg acatggccag atactactcc gctctgcgac actacatcaa tctcatcacc 180  
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 atgaaaacttg ttctcccgac ttttccaagt ttccaccctc atctcatctc atccatcccc 360  
 tggaaaccagt ctgcctgtcc caccaatgca tgccaccact aggctggact ccgcggcatt 420  
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 Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr  
 35 40 45  
 Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
 50 55 60  
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 Glu Ser Thr Glu Asn Ala Pro Arg Thr Arg Leu Glu Asp Pro Ser Met  
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 <212> DNA  
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 ccagcggagg acatggccag atactactcg ggcgtgcgac actacatcaa cctcatcacc 180  
 aggcagagat atggaaaacg atccagccca gagacactga tttcagaccc tttcatgtg 240  
 gaaaggcacag aaaatgttcc cagaactcgg cttaatgtg cttccatgtg gtgatggaa 300  
 atgagacttg ctctctggcc ttttccattt ttcagcccat atttcatcgt gtaaaacgag 360  
 aatccaccca tcctaccaat gcatgcagcc actgtgctga attc 404

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 <212> PRT  
 <213> Homo sapien

<400> 8  
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 Ser Leu Leu Val Cys Leu Gly Ala Leu Ala Glu Ala Tyr Pro Ser Lys  
 20 25 30  
 Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr  
 35 40 45  
 Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr  
 50 55 60  
 Gly Lys Arg Ser Ser Pro Glu Thr Leu Ile Ser Asp Leu Leu Met Arg  
 65 70 75 80  
 Glu Ser Thr Glu Asn Val Pro Arg Thr Arg Leu Glu Asp Pro Ala Met  
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 Trp

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 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Probe

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 agagttccca ggtctaagtc tgaatggcct caagaagaca actgcagacc gagcagaaga 180  
 agttctgctg cagaaggcag aagcttggc ggaggtgcta gatccacaga accgcgagtc 240  
 tcgttctccg cgtcgctgtg taaggctgca cgagtcctgc ttgggacagc aggtacctt 300  
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 <212> DNA  
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<220>  
 <223> Antisense Oligonucleotides

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<210> 11  
 <211> 45  
 <212> DNA  
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<220>  
<223> Antisense Oligonucleotides

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<210> 12  
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<212> DNA  
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<220>  
<223> Primer

<400> 12  
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<210> 13  
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<212> DNA  
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<220>  
<223> Primer

<400> 13  
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<210> 14  
<211> 25  
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<220>  
<223> Primer

<400> 14  
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